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**CLAIMS:**

What is claimed is:

1. A method for processing a data packet in an interpartition virtual network in a logical partitioned data processing system, the method comprising:

responsive to receiving the data packet at a first partition in the interpartition virtual network from a second partition in the interpartition virtual network in the logical partitioned data processing system, identifying a state of a first flag and a state of a second flag in the data packet; and

selectively verifying a checksum in a first partition in the logical partitioned data processing system for the data packet based on the state of the first flag and the state of the second flag.

2. The method of claim 1, wherein the first flag is a no checksum flag and the second flag is a checksum good flag.

3. The method of claim 1, wherein the selectively verifying step includes:

verifying the checksum for the data packet if the first flag and the second flag are unset.

4. The method of claim 1, wherein the selectively verifying step includes:

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skipping verification of the checksum if the first flag is set.

5. The method of claim 1, wherein the selectively verifying step includes:

skipping verification of the checksum for the data packet if the first flag is unset and the second flag is set.

6. The method of claim 1, wherein the first flag is unset if the packet was received through a virtual adapter associated with the first partition.

7. The method of claim 1, wherein the first flag is set if the data packet, received from the second partition, originated from within the logical partitioned data processing system.

8. The method of claim 1, wherein the first flag is unset if the data packet, received from the second partition, was received from outside the interpartition virtual network in the logical partitioned data processing system without the checksum being checked.

9. The method of claim 8, wherein the first flag is unset and the second flag is unset if the data packet was received by a physical network adapter associated with the second partition, wherein a checksum offload is unsupported by the physical network adapter.

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10. The method of claim 8, wherein the first flag is unset and the second flag is set if a physical adapter, supporting a checksum offload, verified the checksum as being good.

11. The method of claim 1, wherein the data packet is received by a virtual adapter in the first partition connected to the interpartition virtual network.

12. The method of claim 1 further comprising:

generating a new data packet for a target destination;

generating the checksum for the new data packet if the new data packet is to be sent outside of the interpartition virtual network by a physical network adapter; and

sending the new data packet to the target destination.

13. The method of claim 12, wherein the sending step includes:

sending the new data packet to the target destination using one of the physical network adapter or a virtual network adapter.

14. The method of claim 1, wherein the first flag and the second flag are located in a header in the data packet.

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15. A logical partitioned data processing system for processing a data packet in an interpartition virtual network in the logical partitioned data processing system, the data processing system comprising:

identifying means, responsive to receiving the data packet at a first partition in the interpartition virtual network from a second partition in the interpartition virtual network in the logical partitioned data processing system, for identifying a state of a first flag and a state of a second flag in the data packet; and

selectively verifying means for selectively verifying a checksum in a first partition in the logical partitioned data processing system for the data packet based on the state of the first flag and the state of the second flag.

16. The data processing system of claim 15, wherein the first flag is a no checksum flag and the second flag is a checksum good flag.

17. The data processing system of claim 15, wherein the selectively verifying means includes:

verifying means for verifying the checksum for the data packet if the first flag and the second flag are unset.

18. The data processing system of claim 15, wherein the selectively verifying means includes:

skipping means for skipping verification of the checksum if the first flag is set.

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19. The data processing system of claim 15, wherein the selectively verifying means includes:

    skipping means for skipping verification of the checksum for the data packet if the first flag is unset and the second flag is set.

20. The data processing system of claim 15, wherein the first flag is unset if the packet was received through a virtual adapter associated with the first partition.

21. The data processing system of claim 15, wherein the first flag is set if the data packet, received from the second partition, originated from within the logical partitioned data processing system.

22. The data processing system of claim 15, wherein the first flag is unset if the data packet, received from the second partition, was received from outside the interpartition virtual network in the logical partitioned data processing system without the checksum being checked.

23. The data processing system of claim 22, wherein the first flag is unset and the second flag is unset if the data packet was received by a physical network adapter associated with the second partition, wherein a checksum offload is unsupported by the physical network adapter.

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24. The data processing system of claim 22, wherein the first flag is unset and the second flag is set if a physical network adapter, supporting a checksum offload, verified the checksum as being good.

25. The data processing system of claim 15, wherein the data packet is received by a virtual network adapter in the first partition connected to the interpartition virtual network.

26. The data processing system of claim 15 further comprising:

first generating means for generating a new data packet for a target destination;

second generating means for generating the checksum for the new data packet if the new data packet is to be sent outside of the interpartition virtual network by a physical network adapter; and

sending means for sending the new data packet to the target destination.

27. The data processing system of claim 26, wherein the sending means includes:

means for sending the new data packet to the target destination using one of the physical network adapter or a virtual network adapter.

28. The data processing system of claim 15, wherein the first flag and the second flag are located in a header in the data packet.

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29. A computer program product in a computer readable medium for processing a data packet in an interpartition virtual network in the logical partitioned data processing system, the computer program product comprising:

first instructions, responsive to receiving the data packet at a first partition in the interpartition virtual network from a second partition in the interpartition virtual network in the logical partitioned data processing system, for identifying a state of a first flag and a state of a second flag in the data packet; and

second instructions for selectively verifying a checksum in a first partition in the logical partitioned data processing system for the data packet based on the state of the first flag and the state of the second flag.

30. The computer program product of claim 29, wherein the first flag is a no checksum flag and the second flag is a checksum good flag.

31. The computer program product of claim 29, wherein the second instructions includes:

sub-instructions for verifying the checksum for the data packet if the first flag and the second flag are unset.

32. The computer program product of claim 29, wherein the second instructions includes:

sub-instructions for skipping verification of the checksum if the first flag is set.

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33. The computer program product of claim 29, wherein the second instructions includes:

sub-instructions for skipping verification of the checksum for the data packet if the first flag is unset and the second flag is set.

34. The computer program product of claim 29, wherein the first flag is unset if the packet was received through a virtual network adapter associated with the first partition.

35. The computer program product of claim 29, wherein the first flag is set if the data packet, received from the second partition, originated from within the logical partitioned data processing system.

36. The computer program product of claim 29, wherein the first flag is unset if the data packet, received from the second partition, was received from outside the interpartition virtual network in the logical partitioned data processing system without the checksum being checked.

37. The computer program product of claim 36, wherein the first flag is unset and the second flag is unset if the data packet was received by a physical adapter associated with the second partition, wherein a checksum offload is unsupported by the physical network adapter.



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38. The computer program product of claim 36, wherein the first flag is unset and the second flag is set if a physical network adapter, supporting a checksum offload, verified the checksum as being good.

39. A logical partitioned data processing system comprising:

- a bus system;

- a memory connected to the bus system, wherein the memory includes a set of instructions; and

- a processing unit connected to the bus system, wherein the processing unit executes a set of instructions to identify a state of a first flag and the state of a second flag in a data packet, in response to receiving the data packet at a first partition in a interpartition virtual network from a second partition in the interpartition virtual network in the logical partitioned data processing system; and selectively verify a checksum in a first partition in the logical partitioned data processing system for the data packet based on the state of the first flag and the state of the second flag.